Peiping's Growing Dilemma—Population

By E. Stuart Kirby

THE ENORMOUS SIZE of mainland China's population is a matter of common knowledge. Probably numbering by now around 625,000,000, it already may represent as much as a quarter of the whole human race and is mounting at a rapid rate. On the other hand, the stores of natural resources within China's borders is limited, constituting relatively a much smaller fraction of total world resources. This disparity between human numbers and available resources confronts the nation's rulers, now Communist, with a vast and inescapable problem.

That the Mao regime has begun to face up to the realities of the problem is attested to by the fact that it is now actively encouraging curbs on population growth which, as late as 1954, Peiping—no less than Moscow—was loudly condemning as contrary to the basic tenets and spirit of Marxism. Artificial methods of birth control, officially denounced during 1949-54 as a "reactionary" and "anti-humanitarian" device of capitalism, are at present being propagated through a concerted campaign designed to "popularize" their use among the masses. Even abortion, which—despite a somewhat checkered history in the Soviet Union—had generally been condemned by the Communists as the least acceptable form of birth control, has received broad legal sanction under new regulations issued by the Peiping government last May.

Thus, there have been two diametrically opposite phases of Chinese Communist policy on birth control since 1949, each reflecting a different outlook and approach to the population problem. The vigorous condemnation of birth control through 1954 was part of the optimistic, self-confident outlook of the regime's early years, which expressed itself in a doctrinaire stand based on Marxist population principles. Since 1955, the shift to increasingly open and positive encouragement of birth control practices reflects a retreat from Marxist dogma in favor of a more practical, realistic approach to the whole population problem.

The Phase of Marxist Orthodoxy

At first, the Communist regime paid little or no attention to birth control or the whole question of population policy. Then, what references were made to them by official spokesmen from 1951 through 1954 largely took the form of boastful assertions of Marxian dogma denying the applicability of Malthusian theories of over-population to socialist society.

In the orthodox Marxist view, since labor is the sole source of value, the proletariat represents the creative and progressive class *par excellence*. Under socialism, therefore, the existence of a large working population is thoroughly desirable and constitutes a guarantee of ample production and economic progress. Under capitalism, on the contrary, the fruits of production are wrested away from the workers by the propertied minority, whose interest lies in preventing or impeding social improvement in order to preserve its "monopoly" position. Malthusianism whether old or new and birth control are simply devices whereby the capitalist class seeks to prevent the workers from realizing these basic "truths" and deludes them into attributing their poverty to inexorable natural laws, the human propensity to multiply

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beyond the limits of the world's supply of resources — rather than to its "real cause", the capitalist system.

The emphasis placed on this orthodox Marxist population line was influenced by certain other motives which led Chinese Communist spokesmen actually to exult in, and even exaggerate, the magnitude and continued rapid growth of the population. Statements boasting of a high or rising rate of population increase were evidently considered of immediate propaganda usefulness as "proof" to the outside world of popular confidence in the Communist regime and of improved living conditions compared to those which existed under Nationalist rule (reflected especially in a claimed reduction of the death rate).

Playing up the size of the population was also used by the regime as a domestic morale booster. By stressing that China alone accounted for one quarter of the world's population, and all the Communist countries together for one third, the regime encouraged popular belief that the national strength of Communist China in particular, and the international strength of the "socialist camp" as a whole, were such that the enemies of communism must necessarily fear to attack. Very possibly also, such statements reflected a natural psychological urge to emphasize China's importance within the Communist bloc, where — in terms of population at least — she is by far the leading power, outnumbering the Soviet "big brother" by some three to one.

Strength Through Numbers

All these motivations, ideological and propagandistic, were repeatedly evidenced during the period from 1951 to 1954. In statements by Mao and other Chinese Communist leaders and in the organs of the party press, China's "hundreds of millions of people" were constantly referred to as the country's treasured asset. As the central party newspaper, *Jen-min jih-pao*, put it in a 1952 article representative of the official pronouncements of this period, "man is the most precious form of capital in the world"—a statement which it prefaced with the words "as Stalin has told us" in conformity with Peiping's then still pronounced attitude of humble obeisance to Moscow. The article further denounced birth control as just "a means of killing off the Chinese people without shedding blood."[1]

One factor that may well have contributed to the dogmatic stand of the regime during this period was the evident lack of any accurate knowledge of the real size of the population. In 1953, however, the Communist government undertook to carry out the first scientifically-conducted census ever attempted in China, the compilation of the census data taking until June 1954 and resulting in population figures purported to be fully accurate. The figures, not publicly announced until November 1, 1954, revealed a total population, including Taiwan and overseas Chinese, of just over 600,000,000 (as of June 30, 1953), of which no less than 574,000,000 were within mainland China.[2] The latter figure was far greater than had hitherto been supposed even by the Communist authorities, whose estimates had generally remained below 500,000,000.[3]

Although the implications of this discovery undoubtedly caused some serious thinking which contributed to the later shift in regime policy, there was no immediate alteration of the official line as set forth above. Indeed, on November 1, 1954, simultaneously with the disclosure of the census results, an official of the Census Bureau restated the regime's viewpoint on population in the following "orthodox" terms:[4]

> **The existence of over 600,000,000 people is the source of wealth of our great country and the basis of its socialist reconstruction. . . . In the People's Democracies, man is the most precious form of capital, the master of his fate, the conscious creator of his own happiness. . . . [We Chinese represent a quarter of the human race. . . . Under the reactionary Kuomintang government, bad material conditions coupled with social and public insecurity led to a high death rate and a low rate of natural increase. . . . After the liberation, the rate of natural increase rose considerably owing to the restoration and development of production, the improvement of the people's material conditions, and progress in medicine and hygiene.**

The statement then cited the census figures subdividing the population by age-group and sex, adding:

> **All these figures prove that children living in the age of Mao Tse-tung are carefully looked after and benefit from favorable conditions of life. The era of poverty, sickness and ignorance is no more. The time when girls were maltreated or drowned is gone. . . .**

The same official sought to explain lower population growth rates in capitalist countries on the fanciful grounds that "capitalism, by diminishing the purchasing power of the masses, and by weakening them through subjection to wretched conditions, is the cause of increased mortality." Finally, he denounced

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[1] *Jen-min jih-pao* (Peiping), April 25, 1952.

[2] For a full discussion of the census, see "Population Problems of China" (three articles) in *Contemporary China*, Vol. I, pp. 32-46.

[3] *Ibid.*, p. 38.

[4] Statement by Pai Chien-hua, in *Jen-min jih-pao*, November 1, 1954.

as "hardly worth contradicting" the horrified claims of "the bankrupt hangers-on of Malthus" that China could not support 600,000,000 people and therefore must inevitably resort to external aggression. Although some difficulties might be experienced in the short run, he asserted, "the excellence of our social system" will permit them to be easily overcome, and "when we have achieved our socialist construction, unemployment will be eliminated and the people guaranteed a happy life as in the Soviet Union."

Influences for Change

The first indications of a major change in Chinese Communist policy regarding the population problem began to manifest themselves from about the end of 1954. Several different influences or tendencies, some new and others which had been gathering momentum even before that date, combined to produce a gradual trend away from the rigid and naive orthodoxy of the earlier period in the direction of a more realistic, hard-headed approach.

Of first importance, undoubtedly, was the regime's growing realization of the economic implications of the huge population figure revealed by the 1953 census and the rapid rate of increase—12,000,000 per year—shown by related demographic studies.[5] The Chinese Communist leadership was compelled to recognize that the new system of planned economy faced a gigantic task in providing for even the simplest living needs of such an enormous population, a task rendered still more formidable by the regime's proposal to carry out rapid, large-scale industrialization. In 1956-57 especially, major difficulties were experienced in carrying out the first Five-Year Plan, and grave discontent arose as a result of the shortfall in the production of consumer goods and housing, the poor quality of the commodities produced, and general deficiencies in living conditions. So widespread was the dissatisfaction that the regime found itself compelled to make drastic revisions in the second Five-Year Plan (which entered into operation this year) so as to allow a somewhat higher proportion of investment in light, or consumer goods, industries, with a corresponding scaling-down of some of the goals for heavy industry expansion.[6] At the same time, these economic strains were clearly effective in bringing home to the leadership the need for concurrent practical measures to check population growth.

A second element which influenced the 1955 change of line was the fact that, even during the period when the party publicly denounced the general practice of birth control as anti-Marxist, the Communists themselves, as a social stratum, were freely resorting to it in their personal lives. The use of contraceptive methods had long been thoroughly countenanced by the party for all persons in the category of "cadres" since they were extremely hard-worked and it was considered desirable, in the party's own interest, that they should be as free as possible from such personal or emotional ties and impediments as the possession of large families entails. Some very interesting and acute observations bearing out the prevalence of birth control practices among the party elite were recorded by the British Labor Party leader, Mr. Aneurin Bevan, during his 1954 visit to Communist China.[7]

The same considerations tended to influence the party toward extending its tacit approval of these practices by the cadres to other categories of key personnel—that is, to all administrative, technical and professional personnel engaged in work vital to the functioning of the state economic and social machinery, who were as hard-pressed as the party cadres by the tasks of "socialist construction." Just as in "bourgeois" society, therefore, birth control practices tended to spread from the "upper", better-educated levels downward or outward into the general population.

Assault on the Family

The two factors or influences discussed above were primarily of a practical nature, impelling the regime to modify its birth control policy from the standpoint of actual and immediate needs, economic and organizational. There was, however, another factor more directly related to the basic, long-range Communist goal of achieving the complete socialist transformation of Chinese society. This was the necessity, recognized as vital by the Mao regime, of using every means to destroy the institutional foundations and the moral and ethical values of the traditional social order—all antithetical to Communist ideology and objectives.

The cornerstone of the old society was the traditional family system, philoprogenitive and conjoint

[5] The 12,000,000 figure is based on the official birth and death rates (37 and 17 per thousand, respectively) announced by Pai Chieh-hua, *ibid.*

[6] See the author's series of articles, entitled "The Basis of Light Industry in China," in *Far Eastern Economic Review* (Hong Kong), March 28, 1957, and following issues.

[7] Quoted in the author's "The People of China, Census Results and Population Policies," *Family Planning* (London), July 1956.

in character—that is, a system essentially characterized by large, tightly-knit families. It consequently became one of the first targets of the Communists' frontal attack on the old order. The attack opened with the promulgation of the "New Marriage Law" of 1950, which struck such a sharp blow at the traditional concepts of marital and family relationships that some Communists demurred on the ground that the country was not yet ready for it. They were, however, sharply overridden by Mao Tse-tung, who pronounced the measure "next in importance only to the great Fundamental Law" (the Constitution).[8] The high importance ascribed by Mao was itself a clue to the law's broad underlying purpose, summed up by an eminent Chinese sociologist in these words:

> The Communist victory in 1949 brought the government of a party deeply pledged to shattering the very foundations of Chinese society. . . . The institutions of marriage and the family have been redefined in terms of the class struggle. Sex is no longer a private, personal matter; love is no longer an individual affair. The marriage relationship is neither a biological union nor a psychological unity, but a grim necessity, historically and materially conditioned.[9]

Among the many detailed facets of the New Marriage Law, its redefinition of the "duties of husband and wife" is of particular pertinence to the present discussion.[10] Article 8 states: "Husband and wife are in duty bound to love, respect, assist and look after each other, to live in harmony, to labor for production, to care for the children, to strive jointly for the welfare of the family and the building of the new society." To the normal intramarital duties of the partners, the Communists thus added two significant extramarital obligations which have been very heavily stressed by the party: the duty of both husband and wife "to labor for production" (*i.e.*, to serve actively in the state economic machine) and "to strive for . . . the building of the new society" (*i.e.*, to give positive, unconditional support to all regime policies). These stipulations clearly reflected another vital purpose of Chinese Communist family policy, namely to assure maximum "social mobility" and hence maximum availability of productive labor-power, both male and female, for accomplishing the gigantic tasks of "socialist construction."

Thus, the Communists sought to undermine and break up the old family system with the dual objective of eliminating it as the chief pillar of conservative resistance to the socialization of the whole of Chinese life, and of creating the kind of social mobility necessary to the functioning of a centrally planned and directed system of economy. In the Marxist view, capitalism depends for its existence upon a large class of people kept deprived of ties of property; but while this view is plainly challenged by fact, all evidence supports the conclusion that the Communist system itself cannot exist without a large proletariat, one not only deprived of property but "liberated" also, as far as possible, from previously-accepted social and moral restraints and from ties of family—in short, a proletariat peculiarly conditioned for regimented labor at the state's command.

The more perceptive of the architects of Chinese Communist policy undoubtedly came to see that birth control could serve as a useful supplementary weapon for the achievement of these objectives. The limitation of offspring would tend to weaken one of the key foundations of the traditional unity and cohesiveness of the Chinese family. At the same time, since large families interfered with the availability of the parents (especially the wives) for productive labor and other "duties" to the state, a reduction of family size was obviously desirable, if not necessary, to provide the maximum social mobility required by the system.

Emergence of the New Line

Such were the three main influences or motivations which played a part in the gradual reorientation of Chinese Communist population policy after 1954. Already, before the end of that year, veteran birth control advocates like Shao Li-tzu, who had carried on a limited and discreet propaganda for their ideas all through the period of Marxist orthodoxy, began to speak out more frankly and boldly in favor of practical measures of family limitation.[11] However, the first clear sign of an official change of attitude was the publication in party propaganda organs, early in 1955, of articles giving the public "a correct comprehension of the problems of birth control and contraception."[12] The gist of the explanations was that the party not only did not oppose the

[8] S. L. Fu, "The New Marriage Law of Communist China," *Contemporary China*, Vol. I, 1955 (Oxford University Press), p. 122.
[9] *Ibid.*, p. 115.
[10] *Ibid.*, p. 129.

[11] See speech by Shao Li-tzu at the National People's Congress, reported in *Jen-min jih pao*, September 18, 1954; also, Shao's article, "Concerning the Problem of the Dissemination of Knowledge about Contraception," *Kuang-ming jih-pao*, December 19, 1954.
[12] Chou o-fen, "How to Treat the Question of Contraception," *Chung-kuo Ch'ing-nien*, (China Youth), No. 4, February 16, 1955.

practice of birth control, but viewed the popular "demand" for it as "reasonable" and worthy of support.

This initial relaxation of the official line was followed, during 1955 and increasingly through 1956–57, by active efforts on the part of the Ministry of Public Health to establish wider clinical and other facilities for the dissemination of birth control advice and information, and to assure the availability of contraceptive supplies through state-operated pharmaceutical outlets. Thousands of birth control clinics and information centers on modern lines are now in operation. In the fall of 1956, moreover, the government ordered the launching of a major national campaign of public education in birth control methods, and every available means is currently being employed to hasten and broaden this drive.[13]

The vigor and intensity of the campaign afford striking evidence of how far Chinese Communist practical policy has departed from the old Marxist dogma which denounced birth control as a capitalist conspiracy to "kill off the Chinese people without shedding blood." From this standpoint, the following eye-witness description of birth control propaganda in Shanghai in June 1957 is illuminating:

> On bill boards, in the most crowded places all over the town, in the windows of stores, inside and outside of clinics, there are displays of the human anatomy, posters spreading information on conception and popularizing the methods aimed at prevention of births. . . .
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> . . . the change from complete taboo to open encouragement has occurred overnight, so to say, without any intermediate stages and preparations.
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> Where but recently there hung pictorial displays of the blessedness that the new marriage law was supposed to bring to the populace, . . . where children were a blessing and were encouraged by the state, now hang strip pictures portraying the hardships of parents overburdened by large families, and in consequence living in financial misery, lacking in nightly sleep, and not having enough time for cultural life. Alongside are displayed practical suggestions how to prevent conception with the aid of contraceptives, chemical and mechanical. These displays, which leave nothing to the imagination, are equally accessible to matured people and to youngsters of all ages, and it is not uncommon to see groups of children gathered around and discussing the pictures.[14]

There have been some interesting and humorous developments in the course of the campaign. Along with the propagation of modern scientific techniques of contraception, the public health authorities seriously explored the use of traditional Chinese medicines and the formulas of herbalists, while Dr. Yei Hsi-chun, a deputy to the 1956 National People's Congress, prescribed with equal seriousness a natural contraceptive "which one can find anywhere in fish ponds or ditches around the time of the Spring Festival . . . women are advised to swallow live tadpoles three to five days after menstruation." [15]

The culminating step in the reversal of official policy came with the issuance by the Ministry of Public Health, on May 15, 1957, of revised regulations governing abortion and sterilization. The effect of the new regulations was to reduce the previous requirements for obtaining both types of operation so drastically as to be tantamount to virtually blanket legalization.[16] In fact, the official announcement was followed by such a "rush" of applicants for abortions that the Minister of Public Health, Madame Li Teh-ch'uan, made a statement deploring the situation and calling for more propaganda to teach people that "artificial expulsion should be avoided . . . for health reasons" and that "best of all is contraception." She added the interesting disclosure that most of the abortion applicants were Communist women cadres, and urged the Democratic Women's Federation to make special efforts to "educate them in this matter."[17]

Ideology vs. Practice

Thus, the Mao regime's practical policy with respect to population checks has steadily progressed, since early 1955, from an initially lukewarm, passive acceptance of birth control practices—allegedly prompted by "the demand of the masses"—to an all-out nationwide effort to indoctrinate the masses from above.[18] This evolution has brought the regime's practical approach to the problem into patent conflict

[13] Some interesting facts and figures bearing on the scope of the campaign and its progress were reported in *Wen Hui Pao* (Shanghai), November 29, 1957.

[14] "Shanghai Newsletter," *South China Morning Post* (Hong Kong), June 15, 1957.

[15] *News of Population and Birth Control* (in Chinese), October 1956 (cited in *Quarterly Bulletin*, Family Planning Association of Hong Kong, December 1956).

[16] The only requirement for abortion under the new regulations is medical certification that the applicant is not more than three months pregnant, has not had an abortion in the past year, and that no complications are likely. See Ministry of Public Health notification on abortion and sterilization, reported in summary by New China News Agency, May 18, 1957.

[17] Reported in *Kuang-ming Jih-pao*, June 4, 1957.

[18] From the start of the 1955 shift in policy, the regime sought to present it as a concession to popular pressure in favor of birth control; *e. g.*, see Chen Ou-fan, *op. cit.* This claim has been soft-pedalled since the launching of the birth control campaign, but the official line still stresses that family limitation is a matter of individual choice and disclaims any desire to impose it.

with its ideological stand, which has proved much more resistant to change. To cite one example, as late as December 1956, a Communist theoretician writing on the population question bitterly attacked the pessimistic views of such contemporary Western scientists as Julian Huxley and Messrs. Pearson and Hubbard, of Cornell University, regarding the threat of world over-population, and even echoed the old, undiluted propaganda line in these words:

> Six hundred million! . . . Cause for us to rejoice, excellent news for all the peoples on the side of democracy and peace . . .[8]

As a general rule, however, there has been an evident attempt on the part of Chinese Communist ideologists to adjust the party theoretical line so as to make room within its framework for the regime's adoption of practical measures to combat over-population. The contradictions in which this effort has entangled the party theoreticians are nowhere more apparent than in an article published in the principal Chinese Communist organ of ideological discussion, *Hsueh Hsi* (Study), in October 1955.

On the one hand, its author, Yang Sou-ying, unequivocally reaffirmed the validity of Marx's and Engels' views on population, which he said completely "exploded" the theories of Malthus. Communist China, he asserted, has no fears whatever of becoming overpopulated because socialism has "a new law of population: a continuous and rapid increase in numbers accompanied by a relatively greater rise in the material well-being of the people." He likewise voiced the usual denunciations of Western scholars and statesmen, and termed the "reactionary theory of over-population" a weapon "used by the Imperialists . . . against the Chinese people and their Revolution."

On the other hand, however, Yang proceeded to argue that the publicity being given to birth control methods (then still on a relatively small scale) was "necessary as well as proper." It was nowise inspired by the belief that China was overpopulated, he claimed, and "has no point in common with Malthus' theory at all." The author then tried to make a fine distinction between general overpopulation and too large individual families. Given the still "rather backward" state of the economy and of general welfare facilities, he added,

> . . . the fact that there are too many children in a family unduly increases the burden of the parents and affects adversely their work, their study of political doctrines, and their general livelihood . . . . In view of the above, in order to lessen the difficulties currently facing us, to protect the health [of mothers], and finally to ensure that the next generation may be brought up better, we are not at all opposed to birth control.[9]

SUCH INGENIOUS sophistry, however, cannot gloss over the plain fact that the Chinese Communists, faced by general and grave conditions of economic hardship, have had to swallow their boasts about the immunity of the socialist system to the menace of overpopulation, and about their capacity to raise the living standards of the people regardless of the rate of population increase. This is implicit in the regime's all-out campaign to promote the widest possible acceptance of birth control practices, and it spells a retreat by Peiping from one of the basic theorems and attitudes of Marxism, no matter how the regime may try to disguise it.

The matter is urgent for China. On top of the long-term prospect of what has been described as "suffocation by crowding" or "standing-room only"—by the Orwellian year of 1984 the population is expected to reach 2,000,000,000—is superimposed a present crisis of shortages in the Communist system of planned economy, as well as some disillusionment about the adequacy of China's material resources. The boasting and over-optimism of the first years of the regime have largely evaporated, giving way to greater caution and realism.

Times change, and, as the practical tasks and difficulties confronting the Chinese Communists loom larger, Marxist dogma is left behind.

[8] Wang Ya-nan, *Marxist Population Theory and China's Population* (in Chinese), December 1956.

[9] Yang Sou-ying, "On the Malthusian Theory," *Hsueh Hsi*, October 2, 1955.

Soviet Education—Four Studies

Nicholas DeWitt:
Soviet Professional Manpower, Its Education, Training and Supply,
National Science Foundation, Washington D.C., 1955.

Alexander G. Korol:
Soviet Education for Science and Technology,
Technology Press and John Wiley & Sons, Inc., New York, 1957.

George S. Counts:
The Challenge of Soviet Education,
McGraw-Hill Book Co., Inc., New York, 1957.

George L. Kline (Ed.):
Soviet Education,
Columbia University Press, New York, 1957.

Reviewed by Norton T. Dodge

THESE FOUR STUDIES of Soviet education, though varying in scope and focus, contribute significantly to a keener appreciation of the fundamentally different function and purpose of education in a totalitarian system as compared with a democratic society.

Nicholas DeWitt, of Harvard University's Russian Research Center, whose book antedates the other three more recent volumes, has produced a broad, pioneering study of the Soviet educational system and its growth and development. Alexander Korol, a member of the research staff of the Center for International Studies of the Massachusetts Institute of Technology, presents a penetrating study of narrower scope concerning an area of Soviet education that is of particular interest at present. George S. Counts, educator and longtime student of Soviet affairs, focusses his attention primarily on the Soviet use of education as a weapon of political indoctrination. Finally, the volume edited by George L. Kline, of Columbia University, affords some interesting, though scattered, first-hand glimpses of the Soviet educational system, as recalled by eight former Soviet citizens.

Like every other form of state-directed activity in the Soviet Union, education is conceived as a weapon serving the interests of the Communist Party and dedicated to a single objective—the victory of the Soviet system. In furthering this aim, it has a two-fold task to accomplish. On the one hand, it must equip thousands of scientists and technicians with the skills and capacities necessary to assure the constant growth of Soviet economic and military strength. On the other, by many perform the function—vitally essential to the perpetuation of any totalitarian system—of inculcating in successive generations of Soviet citizens unquestioning dedication to the ideology and policies of the state.

Thus, under Communist totalitarianism, the development of the state is substituted for that of the individual as the primary goal of education. It is precisely this characteristic which fundamentally distinguishes Soviet educational policy and practice from those in democratic countries. As DeWitt points out (p. 1):

> It is not the individual around whom the educational system is built, but the state, which, by identifying itself with pursuits of the common good, stamps the ruthless subordination of the individual—his rights, tastes, choices, privileges, and his training—as its own needs.

This essential difference of educational purpose under communism and under democracy points up the inadequacy of trying to measure Soviet educational achievement by means of simple comparisons with Western academic training. While DeWitt, Korol and Counts all make such comparisons, they are

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nevertheless more concerned with the basic question of how well Soviet education meets the needs of the Soviet system itself.

The most impressive achievement of the Soviet educational system has unquestionably been the rapid growth in the number of students trained. The present widespread acknowledgment abroad of Soviet achievement in this area is largely the result of DeWitt's study, which at the time it was published in 1955, provided the first comprehensive statistical measure of the progress of education in the USSR. With ingenuity and care, the author pieced together such fragmentary data as were then available from Soviet sources and derived from them estimated enrollment and graduation figures by year and by type of institution and training. It is a testimony to his thoroughness that, when the Soviet government later published its own compilation of educational statistics in *Kulturnoe Stroitelstvo SSSR* (Cultural Construction in the USSR), the estimates were found to be in close agreement. Much of the data contained in the Soviet handbook may be found in Korol's study, making it possible for the interested reader to compare the DeWitt estimates with the official figures.

THE STATISTICS show that there has been impressive growth at every level of the educational system. Total enrollment in regular primary and secondary schools almost tripled over the 25-year period beginning with the 1927–28 school year; the upper grades showed particularly impressive increases—ninefold in grades 5–7 and almost thirtyfold in grades 8–10. During the same period, technicum enrollment rose to more than 15 times its 1927–28 level. For the higher educational institutions, the increase was sixfold both in total enrollment of regular students and in the annual number of graduates. In addition, the number enrolled for correspondence study in the higher institutions—largely teachers seeking to improve their qualifications—has grown rapidly in the past decade and now amounts to one-half the regular enrollment. However, because of the lower graduation ratio for correspondence students, this added only 62,000 graduates to the 179,000 regular graduates in 1955.

The DeWitt and Korol studies also reveal the close correlation between changing state needs and relative enrollments for different types of training. Reflecting the acute demands of the industrialization program, enrollment for engineering study was predominant from the late 1920's until about 1937–38, when the main emphasis shifted to the training of teachers. At present, the state's requirements in the age of nuclear weapons and space satellites are reflected in the fact that engineers and university-trained natural scientists and mathematicians account for almost 40 percent of the regular graduates.

Such preoccupation with science and technology was possible, of course, only at the expense of other academic disciplines, particularly the humanities and social sciences, which are considered less essential to the development of Soviet economic and military strength. The sacrifice of Russian intellectual potentialities in these "non-essential" fields prompts Korol to write (p. 411):

> **The greatest tragedy of this century may well ultimately be that for 40 years successive generations of the Russian peoples, living in a country with enormous potentials in natural resources and possessing vigor, talent, and a rich spiritual heritage, for all the training they have so eagerly and grimly undergone, have been denied the privilege of education.**

Genius can, and indeed must, transcend any educational system, but the average student faithfully reflects his educational environment. Consequently, although the latter may never publish anything or provide other clues to his capabilities, these may be judged fairly accurately through a careful evaluation of the quality of his training. Such an evaluation must encompass the entire educational system: the physical facilities, the teaching staff and methods, curricula, textbooks, examinations, etc. Both DeWitt and Korol undertake this ambitious and challenging task.

On the lowest level, *i.e.*, the "ten-year schools" (equivalent to US primary and secondary schools), physical facilities have been sufficiently expanded to relieve some of the strain. Only a few schools are now operating on three shifts; two-thirds, however, still require two shifts. Laboratory equipment appears to be adequate in the cities, though reports indicate that this is frequently not true of schools in the rural areas.

The ten-year school curriculum, influenced by the old Tsarist gymnasium and its German antecedents, has thus far been a demanding one. Formerly only a small percentage of students was expected to complete this training, and the bulk of the less capable were directed into technicums or vocational schools. Today, however, as ten-year education becomes more general, there are signs of some erosion of the curriculum, in the form of "politechnization"; and it is the humanities, rather than the sciences, which are yielding ground in favor of more vocational type courses. Also, a tendency has been reported to grade student performance less strictly to avoid excessive failures, resulting in a hidden deterioration of stand-

ards. The fixed curriculum, syllabi and texts, however, limit the extent to which such practices are possible, and require a minimum level of achievement that is still quite high.

As far as the quality of teaching is concerned, one deficiency stands out particularly. Although a large proportion of the ten-year school teachers had their training in recent years, methods of instruction are reminiscent of the nineteenth century and stress learning by rote and mastery of detail rather than the development of independent thinking and creative ability. This "formalism in teaching and the pupils' knowledge" is accentuated by the examination system, under which the content of the questions is known in advance, permitting the students to regurgitate previously prepared answers. Still, the student who manages to graduate emerges with a very thorough grounding in rules, methods and techniques, as well as an impressive fund of factual information. As Korol puts it, "he may have gained considerable knowledge, if not an imaginative understanding."

HOW HIGH a place in the social and economic scale a Soviet youth can attain has become increasingly dependent upon his successful ascent of the academic ladder. Until recently, the ten-year school graduate could expect to continue on to higher education. Today, however, their number has so increased that the higher educational institutions can accommodate less than one-fifth of the graduates as regular students, and perhaps another fifth as correspondence students. The majority, therefore, either must be diverted into technicums and other vocational training programs or enter industry without further preparation.

According to the Soviet press, however, many of those not admitted to the higher educational institutions or to vocational training have been reluctant to enter the labor force, and remain at least temporarily unemployed. These frustrated aspirants not only constitute an element of waste in the educational system but also have contributed to the increasingly serious youth problem of recent years. (See articles by A. Kassof and by S. V. and P. Utechin, *Problems of Communism*, May-June 1957.) Despite a growing concern with the situation, the regime has not yet found a solution.

A further problem arises from the keen competition among those entering higher education for admission to certain favored fields of study. As a result of strong incentives (more generous scholarship aid and the future prospect of greater prestige and financial rewards) offered in the fields enjoying high government priority, these fields attract a surplus of applicants, perhaps as many as a dozen candidates competing for each vacancy. Moreover, those who are not admitted must wait a year before reapplying to the same faculty or trying another, with the result that many students apply for a field in which they have little interest but where there is less competition. The unresponsiveness of the educational system to the desires of the students gives rise to frustrated careers and wasted talent. On the other hand, from the government's standpoint, the system does serve its purpose in providing the desired quantity of top-grade material for priority fields of study. In the physical sciences and select fields of technology, for example, there appears to be little outstanding talent missed.

What sort of education do the few who gain admission to the higher institutions obtain? During the past decade, unquestionably, some of the glaring deficiencies have been overcome. The quality of instruction is no longer likely to be impaired by shortages of properly-trained professors or of such physical facilities as classroom space, laboratory equipment and textbooks. However, in the matter of methods, certain defects still persist, one of which is the excessive burdening of students with class hours and other compulsory work. Soviet educational critics themselves have been urging a reduction of the 36 hours of required weekly class time to allow students more opportunity for independent study and thought. But despite these almost universal complaints from educational circles, the class load has not yet been materially lightened.

ANOTHER DEFECT plaguing university education is one inherent in the Soviet system of centralized control—a lack of flexibility in the curricula, syllabi and texts. Any changes not only must be approved by the Ministry of Education, but if approved become obligatory throughout the educational system. As a result, fruitful experimentation with curricula, course content and texts by individual professors or institutions is quite rare. During the period when the elevation of standards was a major concern, such uniformity may well have been necessary to ensure a minimum level of achievement; today, with standards more secure, it mainly tends to discourage and frustrate the more original and creative minds. It is only in the most advanced courses, for which no syllabi can be prepared, that the professors are relatively free to teach as they please.

Despite these weaknesses at various levels of the educational system, both DeWitt and Korol view with respect the final results in the fields of science and engineering. Korol, who had the benefit of evalua-

trans made by M. I. T. specialists of up-to-date Soviet curricula, syllabi, textbooks, examinations and other material, sums up his assessment of Soviet training in physics, for example, in the following terms (p. 357)

A Soviet physics undergraduate starts his course without any formal deficiencies from his secondary education; he pursues his highly concentrated, professionally oriented study for five long years; the university he attends, relative to other Soviet schools of higher education, has been least affected by the unhappy experimentation with curricula, methods, and objectives of training; his school commands relatively the best teachers, textbooks and facilities. As to the level of professional training, therefore, we would conclude that the Soviet physics graduate is at a par with, and in his particular area of specialization (one of ten options) perhaps at a higher level of professional preparation than, his American counterpart after one year of graduate training.

After completing his higher education the Soviet graduate is obligated to accept, for a three-year period, the specific job to which the state assigns him. Although his personal desires may receive some consideration, in the last analysis it is the state's needs which are decisive. The power to allocate jobs in this arbitrary manner is, of course, indispensable to the operation of a highly-centralized, planned economy, but it is at the same time a source of resentment and dissatisfaction among graduates whose personal desires and ambitions are in conflict with the objectives of the all-powerful state.

The other half of the dual task of Soviet education — the mass indoctrination of the people with Communist attitudes and beliefs—is the primary concern of the study by Counts. Additional insights into this aspect are provided by the first-hand reports of ex-Soviet citizens in the volume edited by Kline, which includes a revealing vignette of student life at a Soviet university and interesting accounts of teacher and engineer training. The value of these reports suffers, however, from the fact that all are based on experience prior to World War II.

From the first the Bolsheviks saw quite clearly that they faced the task of re-educating an entire people. Their almost naive confidence in the ability to transmute a conglomerate mass of human raw material into uniform replicas of the "New Soviet Man" was typified by Lunacharsky's boast that "we can mold a child of 5–6 years into anything we wish." Although hard-headed realists followed Lunacharsky as Minister of Education, the same grandiose aims

MANPOWER AND THE POWER OF THE STATE

The dimension that must above all be taken into account, if we are to understand the nature of the Soviet educational system, is the power of the Soviet dictatorship to allocate national resources, including intellectual resources, to its own ends. The degree of state control over manpower resources is exemplified by the obligation of every trained individual to work in a designated capacity and location for a number of years (in practical terms, indefinitely) after completing training.

Under Stalin, compliance with this requirement was substantially assured by the threat of direct punishment—a term in a forced labor camp. Under the "collective leadership," the harshness of enforcement has apparently been mitigated somewhat, with increased reliance being placed on exhortation and appeals to duty; and the many comments in the current Soviet press on the placement of graduates point to a considerable resistance on their part to accepting undesirable assignments. But graduates are still obligated to accept appointments. Despite Stalin's death and the subsequent relaxation of fear of police penalties, the statutory obligation of all graduates to take up designated work has been, to our knowledge, neither repealed nor modified; and it would be a mistake to believe—as Khrushchev would have the world believe—that the Soviet labor laws merely expressed Stalin's "cruelty." The need for compliance—if necessary, under a threat of extreme punishment—arises not from the qualities of individual leaders but inevitably from the logic of Communist philosophy and practice.

—From Alexander G. Korol's *Soviet Education for Science and Technology*, p. 401.

continued to motivate Soviet educational policy and practice down to the present time.

In his chapters dealing with political and moral indoctrination, Counts describes in detail how the teaching of literature, languages, history and even the sciences has been fashioned to build "the foundations of a scientific Communist world outlook." Of these, history is the most important medium for the inculcation of Bolshevik political ideas. In the ten-year schools, instruction in the history of the USSR is heavily stressed because—in the words of the Minister of Education of the Russian federated republic (RSFSR)—it aids pupils "to understand the priceless significance of the achievements of the socialist revolution" and cultivates in them "the desire to devote all of their strength to continuing successfully the cause of their fathers—the building of a Communist society in the Soviet Union." At the university or institute level, all students, even in engineering, must study the history of the Communist Party, dialectical and historical materialism, and Marxist-Leninist political economy; and their views are further conditioned by party-directed student activities and organizations, as well as by the more general media of the press and cinema—indeed, by their whole environment.

IT IS PERHAPS unfortunate that neither Counts' study nor any of the others under review explores the question of how the Soviet utilization of the humanities and the social sciences as vehicles of Communist indoctrination has affected the quality of education in these fields. DeWitt and Korol are almost exclusively concerned with Soviet training in the natural sciences and technology, where ideological dogmatism and interference have been felt to a relatively small degree. Both authors recognize this as one of the major reasons for the greater vigor and progress in these areas.

Counts' silence on this aspect is explained, perhaps, by the fact that the catastrophic effects of Communist attempts to force ideological conformity upon literature, art and the social sciences are already so well known as to need little elaboration. Philosophy, history, economics, sociology, even biology and genetics—all have been so twisted to fit the mold of Soviet-type Marxist dogma that these disciplines no longer exist as areas of true scientific inquiry.

What does concern Counts is the vital question of whether the formidable machinery of indoctrination set up by the Soviet state has actually accomplished its goal of converting an entire people, as Lunacharsky so confidently boasted it would. In Counts' view, the answer to this question unhappily must be a qualified affirmative, but many observers would not fully share his pronounced pessimism. The observations of recent visitors to the Soviet Union, as well as scattered reports which have appeared in the Soviet press, provide substantial evidence of a growing ferment among the young intellectuals, and of the reawakening of a questioning and even critical attitude toward the Communist regime.

It is, of course, only in the past year or two that these currents of opposition have been able to come to the surface. During the last years of Stalin's regime, and even later, visitors to the Soviet Union invariably returned with the conviction that the massive weight of indoctrination and propaganda, coupled with long insulation from foreign contacts, had finally "brainwashed" the entire population. However, as soon as the grip of Stalinist terror was relaxed slightly, the facade of monolithic unity began to crack and hitherto latent doubts and dissatisfaction started to manifest themselves. The present reviewer witnessed this ferment in its incipient stage just three years ago.

To those who have lived as Soviet citizens and know from personal experience how far appearances can differ from reality in a totalitarian system, the recrudescence of signs of popular antagonism to the regime comes, perhaps, as less of a surprise than to many outside observers. The contributors to Kline's volume confirm that, even in the heyday of Stalinism, Soviet students remained inwardly sceptical of many aspects of Communist political belief, although forced to give outward acceptance and lip service. On the other hand, it certainly would be dangerous to assume that the outlook and attitudes of youth have not been warped to a considerable extent by long years of Communist indoctrination. In his sketch of Soviet university life for the Kline volume, for instance, H. G. Friese acknowledges (pp. 66-7):

> At least one cardinal tenet of Marxism-Leninism was sincerely accepted by most university students, as well as ten-year school pupils, namely, that all preceding social systems, as well as present systems beyond the pale of Soviet socialism, were and are deeply unjust. . . . It was not merely the "scientific" criticism of Marx's *Capital* which convinced them of this, but also Russian literary works of the nineteenth century, including the writings of Gogol, Turgenev, Tolstoy, Goncharov, and Chernyshevski, and—among foreign authors—Schiller, Zola, and many others.

Moreover, even though the evidence of recent years indicates the existence in Soviet society of significant numbers of dissenters and non-conformists, it would be